

Curecanti National Recreation Area Black Canyon of the Gunnison National Monument Outreach Education

Grade 8 pre-visit "The Active Earth"



What Comes From Rocks?

Many things we use in our every day lives come from rocks. That's right, from rocks! Circle the things below that come from rocks.

pencils
mirror
jewelry
pottery
computer
sidewalks
paper
grass
styrofoam cup
steel wool

coin money
drinking glass
soda pop can
chalk
lipstick
blue jeans
metal baseball bat
book
nylon hosiery
metal knife, fork, spoon

table salt
plastic spoon
scissors
paint
shoe polish
wooden spoon
clock/watch
plastic bag
toothpaste
airplane

"Products of Geology"

Now that you know what things come from rocks, categorize the products into the following:

Petroleum Products

Mineral Products

Rock Products

Coal Products

Can you think of other "products of geology?"



Curecanti National Recreation Area

Black Canyon of the Gunnison

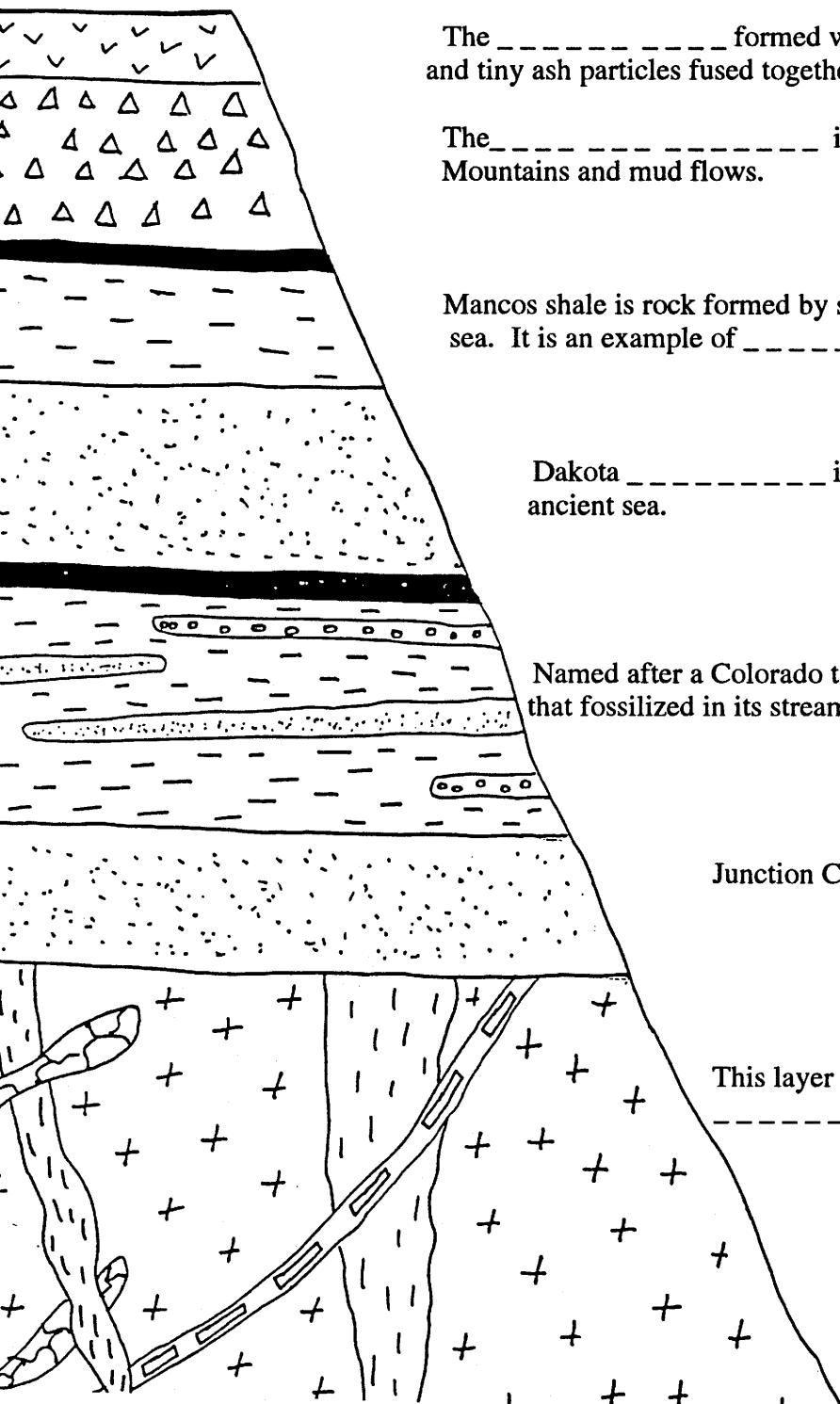
National Monument

Outreach Education



Grade 8 post-visit activity-"The Active Earth"

Instructions: Curecanti's rock layers are represented graphically below. Read the clue next to each layer, and fill in the blanks.



The _____ formed when extremely hot volcanic ash cooled quickly and tiny ash particles fused together.

The _____ is a mixture of volcanic ash from the West Elk Mountains and mud flows.

Mancos shale is rock formed by soft muds that sank to the bottom of an ancient sea. It is an example of _____ rock.

Dakota _____ is the remnants of beach sands on the edge of an ancient sea.

Named after a Colorado town, this layer is famous for the dinosaur bones that fossilized in its stream sediments. _____

Junction Creek Sandstone was deposited by _____.

This layer was deposited before life. It is called _____.

Mark the layers properly with an **I** for igneous, an **M** for metamorphic, or an **S** for sedimentary.

Curecanti National Recreation Area Black Canyon of the Gunnison National Monument Outreach Education

Grade 8 vocabulary-"The Active Earth"



Deposition:	The laying down of materials that may later form a rock, sedimentation.
Deformation:	Folding and faulting of rocks due to forces within the earth.
Erosion:	The process by which rock and soil are removed from any part of the Earth's surface; the effect of weathering.
Weathering:	The mechanical disintegration and chemical decomposition of rocks.
Frost Wedging:	The mechanism by which jointed rocks are pried apart by ice acting as a wedge.

Rock Types

Igneous:	Rocks that have solidified from magma.
--volcanic breccia	A rock composed of angular volcanic fragments.
--welded tuff	The volcanic rock that results from a glowing avalanche. The hot ash welds together to form a very hard rock.
Igneous Intrusive:	A body of magma that crystallizes within the earth's crust.
--granite	
Sedimentary:	Rocks formed by the accumulation of layers of clastic and organic material.
--Mancos Shale	
--Dakota Sandstone	
--Morrison Formation	
Metamorphic:	Rocks that form at depth within the crust through solid-state recrystallization of pre-existing rocks as a result of heat, pressure, and chemically active fluids.
--Gneiss	
--Schist	



Curecanti National Recreation Area Black Canyon of the Gunnison National Monument Outreach Education

Grade 8 In-park activity-"The Active Earth"



1. Using what you have learned about geology describe the Dillon Pinnacles to a scientist.

2. Describe the Dillon Pinnacles to an artist.



Curecanti National Recreation Area
Black Canyon of the Gunnison
National Monument
Outreach Education

Grade 8 In park activity-"The Active Earth"



1. Sketch the Dillon Pinnacles:
2. Using what you have learned about the geology of the Dillon Pinnacles sketch how you believe the pinnacles appeared before erosional forces:

3. Sketch how you believe the pinnacles will appear in another million years:

